



Transtank[®]
INTERNATIONAL

Operator's Product HandBook

SilageMaster[™]

Silage Applicator Sprayer



“HELPING TO DEVELOP AND PROTECT THE LAND”

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Disclaimer

All information, illustrations, and specifications contained in this manual are based on the latest product information available at the time of this publication's printing. TransTank International (TTi) reserves the right to alter and substitute specifications and methods at any time, in line with our commitment to continuous improvement.

No patent liability is assumed with respect to the use of information contained within this manual. While every precaution has been taken in the preparation of this manual, TTi assumes no responsibility for errors or omissions.

Thank you for purchasing a TTi SilageMaster™ Silage Applicator Sprayer (SilageMaster), which will provide many years of reliable service when operated and maintained in accordance with this manual.

TTi manufacture two SilageMaster units, 100 and 200 litre tanks. The SilageMaster is supplied with a 12-volt electric pump with a wireless remote ON/OFF switch for control of the standard two-nozzle spray boom. This manual describes the operation, driving stability and maintenance procedures applicable to all units, noting additional requirements to options where necessary.

All TTi SilageMaster tanks are rotationally moulded from quality polyethylene, purpose designed and manufactured to high standards. The SilageMaster is specifically designed to be mounted to your tractor or baler and used for silage spraying.

The SilageMaster unit is supplied complete, tested and ready to mount to your vehicle. TTi warrants that the SilageMaster has been designed and built for its intended purpose as a silage spray unit.

The owner is responsible to ensure that the equipment is operated in accordance with this manual, with Australian WorkSafe requirements, applicable road rules and local council regulations. TTi is not liable for any loss, injury or death resulting from the failure to observe all safe working regulations as required by law.

Included with your SilageMaster unit is the following documents:

- Operator's Handbook (this manual, which includes the Warranty Registration Card)
- 12 Volt Remco 8.3L/min electric pump manufacturer's handbook
- Tank Quality Check Form. This is your verification that the unit has been quality checked, and verifies the serial number affixed to the unit.

Safety

This manual is intended for use by personnel experienced in the use of this and similar equipment. Read and understand this manual before attempting to operate or perform routine maintenance on this equipment. Your safety is of prime priority.



A WARNING highlights an essential operating or maintenance procedure, practice, condition or statement, which, if not strictly observed, could result in injury or death of personnel, or long-term health hazards.



A CAUTION highlights an essential operating or maintenance procedure, practice, condition or statement, which, if not observed, could result in damage or destruction of equipment.



A NOTE highlights or clarifies an essential systems description, operating or maintenance procedure, condition or statement.

General Safety Instructions

1. This unit is designed and manufactured solely for the purpose of carrying and spraying silage inoculants. Under no circumstances should it be used for any other purpose. It must never be used for transporting fuel.
2. Only authorised and trained personnel are to operate this equipment. Operators must have read and fully understood this manual before operating the SilageMaster unit.
3. Do not operate the SilageMaster anywhere near bystanders, livestock, watercourses or any non-targeted vegetation that may be in danger from spray drift contamination.
4. Wind direction and speed must be taken into account, as windy conditions may endanger the operator or damage to adjacent non-target vegetation. Avoid spraying on hot and sunny days or when wind speed exceeds 6.5km/h.
5. Do not operate this equipment while under the influence of alcohol or any drugs that could impair your capabilities in any way.
6. PPE appropriate to the chemicals being used must be worn at all times when operating the SilageMaster. As a minimum, the PPE should include coveralls, gloves and boots. A face shield and PVC apron are recommended depending on the task. It is recommended that the following documents should be read and understood by the operator:
 - Australian Standard for Chemical protective clothing AS3765
 - Australian Standard for Respiratory protection devices AS1715
7. Ensure the capacity of the vehicle is suitable for the loaded mass of the SilageMaster. Refer to the vehicle's operator manual for safe working loads, correct securing points and relevant safety instructions. Do not exceed the carrying and braking capacity as specified by the vehicle manufacturer. As a guide, one litre of water weights one kilogram (kg), therefore a full 200 litre SilageMaster will weigh in excess of 240kg.
8. The unit must be securely mounted to the vehicle. Ensure the SilageMaster is secured correctly before operation.
9. Care should be taken at all times, particularly when operating on rough or steep terrain. Drivers should be aware of fluid surge affecting the vehicle's centre of gravity.
10. The SilageMaster must never be left unattended while being filled with inoculants.
11. Do not operate the pump when there is no fluid in the tank.
12. Do not disconnect any hoses, nozzles or filters while the equipment is operating. Disconnecting any components while under pressure may result in uncontrolled fluid discharge which may be hazardous.
13. Ensure any electrical connections are properly configured, to prevent damage such as shorting or reverse polarity.
14. At completion of operation, switch the pump off and relieve any residual pressure by opening a spray boom valve.
15. At completion of the operation, decontaminate the SilageMaster tank and spray lines. Drain any residue inoculants and store in a sealed container. Dispose of any unwanted chemicals and tank rinse residue in accordance with current environmental and workplace health and safety regulations.
16. The SilageMaster has safety labels affixed to various locations on the unit. These labels should be kept clean and legible, and replaced if damaged.
17. Any unauthorised modifications to this equipment may affect its function and create a serious safety risk. Any unauthorised modifications will void any warranty on the unit.

General Information

Specifications

Tank	UV stabilised chemical resistant polyethylene fully drainable tank – 100 and 200 litre capacities
Frame	Galvanised steel mounting frame
Standard Equipment	Remco 12V electric pump – 8.3L/min 100psi, c/w 3.6m electrical lead with alligator clips
	Pressure regulator with gauge
	Boom with 1m spray swath via two non-drip nozzles
	Wireless remote ON-OFF switch

Description

The TTI SilageMaster Silage Applicator Unit is designed to carry and distribute inoculant using a self-contained pump and a double nozzle boom dispensing system. The SilageMaster has the features shown in Figure 1:



Figure 1 – Component Identification

Pump

The SilageMaster is fitted with an 8.3 L/min 100psi 12V Remco electric pump. If the spray boom is not in operation when the pump is running, the fluid bypasses back into the tank.

Spray Boom

The SilageMaster's double nozzle spray boom is mounted to the tow vehicle (tractor or baler) at a suitable location. The boom is attached to 3m of hose from the pump to allow remote mounting. The 1m wide swath spray boom has two non-drip nozzles, adjustable via the pump's pressure regulator and gauge.

Pressure Regulator

A pressure regulator and pressure gauge are fitted to the pump discharge flange to control line pressure

and prevent pump cavitation. The regulator is adjustable depending on the operation requirements – set to minimum enables the fluid to bypass back into the tank, for boom spraying, the regulator is to be set to approximately 3 bar.

Suction Filter

A filter is installed on the suction line adjacent to the pump. The filter has a removeable filter element for easy cleaning.

Frame

The SilageMaster tank is mounted on a fully welded steel frame, hot dip galvanised for corrosion resistance.

Tank

All TTI tanks are constructed from UV resistant, virgin material polyethylene. The tank is fully drainable and has an internal basket strainer under the filling lid.

Machine Limitations

The SilageMaster units are subject to operating limitations. It is the operator's responsibility to ensure that this equipment is being operated safely and within these limitations.

Driving Stability

The SilageMaster unit is heavy when filled with fluid. To maintain stability while operating this unit:

- Ensure the vehicle tyres are inflated to their correct pressure at all times (refer to Maintenance Schedule for correct pressure). Underinflated tyres can cause excessive lateral motion of the tyre, which may cause a rollover.
- Allow extra room for braking and turning when the tank is full.
- Ensure any side gradient (slope) is accounted for, especially when the SilageMaster tank is full, as the vehicle may have a higher centre of gravity.

Spray Boom Calibration

Accurate calibration is an essential element of any spraying function as it ensures that the chemical is applied at the rate specified on the product label. Application in excess of the recommended rate may be dangerous, can damage crops and is uneconomical.

Calibration must be carried out:

- When spraying for the first time with new spray equipment
- At the beginning of each season
- After changes of nozzle tips, spraying pressure or vehicle speed
- After every 100 hectares of spraying

PPE appropriate to the chemicals being used must be worn at all times when calibrating the SilageMaster. As a minimum, the PPE should include coveralls, gloves and boots. A face shield and PVC apron are recommended.

Calibration Procedure

Check the label on the chemical container for the application rate and recommended spray nozzle type, refer to Figure 2, which shows the TeeJet AIXR nozzle application chart. To apply a specific rate of chemical to the target surface, work out the:

- total sprayer output,
- travel speed, and
- the swath width.

Using these parameters, the application rate is calculated as follows.

Measure Total sprayer output [L/min]

Set the pressure at the correct level for spraying determined by the type of nozzles. All nozzles used for spraying should be left on. For initial trials, set the pressure regulator at approximately 2 bar and adjust as needed.

- Fill the spray tank with clean water, refer to Filling the SilageMaster Tank procedure below. Run the sprayer at the correct pressure with all nozzles operating.
- Place a measuring jug under first nozzle for one minute, then measure how much water is in the jug.
- Repeat for all nozzles. Nozzle output should not vary by more than 10%. If it does, the nozzle could be worn or damaged and should be replaced.
- Add all the jug measurements to find the total sprayer output in litres per minute.

Measure the travel speed [km/h]

The normal speed for spraying with small boom sprayers is 4–10 km/h. The slower the travel, the higher the application rate. Adjust travel speed to suit ground conditions.

- Measure how many seconds it takes to travel 100 metres with the sprayer attached and half full.
- Calculate your travel speed by inserting the time in seconds into the following formula: *Travel speed (km/h) = distance travelled in metres (say 100m) x3.6 / Time taken (in seconds)*

Calculate spray application rate [L/Ha]

First, measure the swath width in metres. For general broadcast spraying, the swath width is equal to the number of nozzles multiplied by the nozzle spacing. For band spraying, the swath width is equal to the total of all the band widths. Calculate the application rate using the following formula:

$$\text{Application rate (L/ha)} = (600 \times \text{total sprayer output (L/min)}) / (\text{swath width (m)} \times \text{travel speed (km/h)})$$

Example: If total sprayer output is 5 L/min, speed is 8 km/h, and swath width is 4m, the application rate = $(600 \times 5 = 62.5 \text{ L/ha}) / (4 \times 8)$

If the application rate is less than specified, increase the pressure and repeat calibration to achieve the correct rate. Once the required rate is achieved, note the following parameters for future reference when using this particular chemical:


Nozzle Fitted

Type (Drop Size)

Application Rate









Spray Pressure

Forward Speed.

Nozzle Icon	Pressure bar	DROP SIZE	LERAP RATINGS	CAPACITY ONE NOZZLE IN L/MIN	I/ha 									CAP PART NUMBER			
					5 km/h	6 km/h	7 km/h	8 km/h	10 km/h	12 km/h	16 km/h	18 km/h	20 km/h				
AIXR110015 (100)	1.0	XC	—	0.34	81.6	68.0	58.3	51.0	40.8	34.0	25.5	22.7	20.4	11441A*-CELR			
	2.0	C	—	0.48	115	96.0	82.3	72.0	57.6	48.0	36.0	32.0	28.8				
	3.0	C	—	0.59	142	118	101	88.5	70.8	59.0	44.3	39.3	35.4				
	4.0	M	—	0.68	163	136	117	102	81.6	68.0	51.0	45.3	40.8				
	5.0	M	—	0.76	182	152	130	114	91.2	76.0	57.0	50.7	45.6				
	6.0	M	—	0.83	199	166	142	125	99.6	83.0	62.3	55.3	49.8				
AIXR11002 (50)	1.0	XC	—	0.46	110	92.0	78.9	69.0	55.2	46.0	34.5	30.7	27.6		11443A*-CELR		
	2.0	VC	—	0.65	156	130	111	97.5	78.0	65.0	48.8	43.3	39.0				
	3.0	C	—	0.79	190	158	135	119	94.8	79.0	59.3	52.7	47.4				
	4.0	M	—	0.91	218	182	156	137	109	91.0	68.3	60.7	54.6				
	5.0	M	—	1.02	245	204	175	153	122	102	76.5	68.0	61.2				
	6.0	M	—	1.12	269	224	192	168	134	112	84.0	74.7	67.2				
AIXR110025 (50)	1.0	XC	**	0.57	137	114	97.7	85.5	68.4	57.0	42.8	38.0	34.2			11443A*-CELR	
	2.0	VC	**	0.81	194	162	139	122	97.2	81.0	60.8	54.0	48.6				
	3.0	VC	**	0.99	238	198	170	149	119	99.0	74.3	66.0	59.4				
	4.0	C	**	1.14	274	228	195	171	137	114	85.5	76.0	68.4				
	5.0	C	**	1.28	307	256	219	192	154	128	96.0	85.3	76.8				
	6.0	M	—	1.40	336	280	240	210	168	140	105	93.3	84.0				
AIXR11003 (50)	1.0	XC	**	0.68	163	136	117	102	81.6	68.0	51.0	45.3	40.8				11443A*-CELR
	2.0	VC	**	0.96	230	192	165	144	115	96.0	72.0	64.0	57.6				
	3.0	VC	**	1.18	283	236	202	177	142	118	88.5	78.7	70.8				
	4.0	C	**	1.36	326	272	233	204	163	136	102	90.7	81.6				
	5.0	C	**	1.52	365	304	261	228	182	152	114	101	91.2				
	6.0	M	—	1.67	401	334	286	251	200	167	125	111	100				
AIXR11004 (50)	1.0	UC	***	0.91	218	182	156	137	109	91.0	68.3	60.7	54.6	11443A*-CELR			
	2.0	XC	**	1.29	310	258	221	194	155	129	96.8	86.0	77.4				
	3.0	VC	**	1.58	379	316	271	237	190	158	119	105	94.8				
	4.0	VC	**	1.82	437	364	312	273	218	182	137	121	109				
	5.0	C	**	2.04	490	408	350	306	245	204	153	136	122				
	6.0	C	—	2.23	535	446	382	335	268	223	167	149	134				
AIXR11005 (50)	1.0	UC	***	1.14	274	228	195	171	137	114	85.5	76.0	68.4		11443A*-CELR		
	2.0	XC	***	1.61	386	322	276	242	193	161	121	107	96.6				
	3.0	VC	**	1.97	473	394	338	296	236	197	148	131	118				
	4.0	VC	**	2.27	545	454	389	341	272	227	170	151	136				
	5.0	C	**	2.54	610	508	435	381	305	254	191	169	152				
	6.0	C	—	2.79	670	558	478	419	335	279	209	186	167				
AIXR11006 (50)	1.0	UC	***	1.37	329	274	235	206	164	137	103	91.3	82.2			11443A*-CELR	
	2.0	XC	***	1.94	466	388	333	291	233	194	146	129	116				
	3.0	VC	***	2.37	569	474	406	356	284	237	178	158	142				
	4.0	VC	**	2.74	658	548	470	411	329	274	206	183	164				
	5.0	C	**	3.06	734	612	525	459	367	306	230	204	184				
	6.0	C	—	3.35	804	670	574	503	402	335	251	223	201				
AIXR11008 (50)	1.0	UC	—	1.82	437	364	312	273	218	182	137	121	109				11443A*-CELR
	2.0	XC	—	2.58	619	516	442	387	310	258	194	172	155				
	3.0	VC	—	3.16	758	632	542	474	379	316	237	211	190				
	4.0	VC	—	3.65	876	730	626	548	438	365	274	243	219				
	5.0	VC	—	4.08	979	816	699	612	490	408	306	272	245				
	6.0	C	—	4.47	1073	894	766	671	536	447	335	298	268				
AIXR11010	1.0	UC	—	2.28	547	456	391	342	274	228	171	152	137	11443A*-CELR			
	2.0	UC	—	3.23	775	646	554	485	388	323	242	215	194				
	3.0	XC	—	3.95	948	790	677	593	474	395	296	263	237				
	4.0	VC	—	4.56	1094	912	782	684	547	456	342	304	274				
	5.0	VC	—	5.10	1224	1020	874	765	612	510	383	340	306				
	6.0	VC	—	5.59	1342	1118	958	839	671	559	419	373	335				

NOTE: Always double check your application rates. Tabulations are based on spraying water at 21°C.

DROPLET SIZE CATEGORIES

							
XF	VF	F	M	C	VC	XC	UC
EXTREMELY FINE	VERY FINE	FINE	MEDIUM	COARSE	VERY COARSE	EXTREMELY COARSE	ULTRA COARSE

Droplet size may vary with nozzle capacity, spray angle and spray pressure.

Figure 2 – AIXR Application Chart

SilageMaster Operating Instructions

Before first use

Your SilageMaster unit is delivered assembled and ready to be mounted to the tow vehicle (typically, your baler or tractor). Before use, it needs to be set up using the following instructions:

- Complete the warranty registration online at www.tti.com.au/warranty-registration, or use the Warranty Registration Card at the back of this handbook.
- Store this handbook, along with the Tank Quality Check Form and pump unit's manual in a safe and easily accessible place for future reference.



NOTE! The operator must fully understand all aspects of this handbook. Do not operate the SilageMaster unit if you are unfamiliar with its operation until you have read this handbook.

- Read and thoroughly understand this handbook, paying particular attention to all safety requirements, before using the SilageMaster for the first time.
- Check that all fittings, valves, hoses and electrical leads are secure following transit, and are not damaged in any way.
- Inspect the tank for any damage or abrasions that may occur during transit.



CAUTION! The unit must be securely attached to the tow vehicle. Failure to do so may result in the unit breaking away from the moving vehicle. Warranty is conditional on the unit being correctly mounted.

- Mount your SilageMaster unit onto the tow vehicle, ensuring all mounting fixtures are tightened firmly.



CAUTION! Ensure any electrical connections are configured correctly to prevent shorting or reverse polarity. Warranty is conditional on the electrical systems being correctly connected.

- Connect the supplied ON-OFF switch control unit, refer to Figure 3, into the cable socket from the pump.
- Plug the supplied 3.6m pump power cable into the other cable socket at the ON-OFF switch control unit, then route the cable from the SilageMaster to the tow vehicle's power supply. Ensure the cable is located where it will not be damaged.
- Connect the cable's alligator clips to the vehicle's battery.
- Check that the power cable's inline ON-OFF switch is switched to ON – this switch isn't required and the pump is controlled via the wireless remote control unit.



Figure 3 –ON-OFF Switch Control Unit and Wireless Remote

- It is recommended that at first use, the SilageMaster is filled with water for calibration purposes and for the operator to become familiar with the characteristics of the unit. Refer to the Calibration Procedure above.

Filling the SilageMaster Tank



WARNING! Ensure the filling area is in an open, well-ventilated space if filling with chemicals. Follow the instructions provided with the chemicals or the applicable Safety Data Sheet.

- Mixing and filling the SilageMaster unit should be undertaken at a carefully chosen site, away from any risk of spillages draining into water courses or into environmentally sensitive areas. Children and animals must always be kept away from mixing and filling operations.
- The SilageMaster unit's tank is filled as follows:



NOTE! Ensure the operation lever is set to BYPASS.

- Check that the pressure regulator's is set to the minimum position by turning the knob anti-clockwise, refer to Figure 4.
- Open the tank filler by twisting and lifting the cap.
- Withdraw the internal basket strainer and inspect it for any debris. Clean it if required and reinstall it into the top of the tank.
- Follow the chemical manufacturer's instructions and safety precautions carefully, taking note of the order in which the products are added to the tank.
- Measure the correct quantities of chemicals using clean measuring containers specifically for this purpose only, then add the chemicals to the tank.
- Rinse out the measuring containers and any empty containers and pour all rinsing liquid into the SilageMaster tank.



CAUTION! Do not overfill the tank. This may result in chemical spillage.



CAUTION! The SilageMaster must never be left unattended while being filled with fluid.

- Top up the tank with water to the required level, ensuring it is not overfilled.
- Thoroughly mix the contents by stirring with a suitable paddle or starting the pump to allow recirculation through the pump and back into the tank (refer to Operating Instructions). Ensure the pressure regulator is at the minimum (BYPASS) position, enabling the fluid to circulate back into the tank.
- Upon completion of filling the SilageMaster tank, replace the filler cap and twist to tighten.
- Wash off any spillage from outside the tank.
- Close the chemical supply containers and store appropriately. Any empty containers must be thoroughly rinsed and set aside for collection and disposal in compliance with environmental and work safety requirements.

Operating Instructions

The SilageMaster is started and operated as follows:



WARNING! Before commencing spraying, plan the work effectively to minimise potential contamination of adjacent areas.



WARNING! Do not spray in windy conditions, where spray drift contamination may occur. Spray drift can be reduced by lower nozzle height, lower pressures or by fitting larger nozzles.

- Confirm the tank contains the required chemical or water quantity.
- With the pump turned OFF, check that the pressure regulator is set to the required pressure (approximately 3 bar) as determined by the calibration procedure, refer to Figure 4.



Figure 4 – Figure – Pressure Regulator

- Position the vehicle at the starting point of the operations area.
- From the driver's seat, press the wireless remote unit's ON button to start the pump and commence driving. Observe that the spray boom is discharging inoculant.
- At the end of the required run, press the wireless remote unit's OFF button to switch the pump OFF.

Clean-up and Decontamination

After use, the SilageMaster unit must be thoroughly decontaminated inside and outside – including the pump, hoses and boom – to avoid damage to crops from any harmful pesticide spray residues. Decontamination also prevents sprayer corrosion and abrasion.

Cleaning the SilageMaster should be undertaken at a carefully chosen site, away from any risk of spillages draining into watercourses or into environmentally sensitive areas.

The recommended decontamination procedure is as follows:



NOTE! Suitable PPE must be worn by the operator when cleaning and decontaminating the SilageMaster unit. Follow the instructions provided with the chemicals or the applicable Safety Data Sheet.



NOTE! Ensure the cleaning area is in an open, well-ventilated space, and any flushing water is captured to prevent runoff into watercourses or into environmentally sensitive areas.

- After spraying operations are complete, drain any residual fluid via the bung located at the bottom of the tank. Capture and dispose or store any fluid in accordance with environmental and work safety requirements.
- Rinse out the tank with several changes of water, plus a recommended cleaning fluid. Where it can be reached internally, use a brush to scrub the inside of the tank.
- Operate the SilageMaster unit with clean water using the spray boom, to ensure no chemical residue remains.
- Unscrew the suction filter cover and remove the filter screen and gasket. Soak the filter screen in clean water, brushing carefully with a nozzle brush. When re-assembling, ensure the gasket is in position.
- Ensure that the tank's basket strainer is free from chemical residue or debris.
- Nozzles, nozzle filters, nozzle caps and gaskets should be cleaned by soaking in water, brushing with a nozzle brush and allowed to dry. Do not blow through the nozzles or use wire or pins to clear any blockages.
- Dispose of all rinsing water in compliance with environmental and work safety requirements.

If the SilageMaster unit is to be stored for an extended period, thoroughly clean and decontaminate the unit as described above. Ensure it is allowed to dry, the tank and all lines empty and not pressurised then store it in a well ventilated area.

Maintenance

Your SilageMaster Silage Applicator Sprayer requires minimal maintenance but regular cleaning and checks will ensure safe and reliable service over its lifetime. Periodic checks and inspections will identify any potential issues, enabling timely rectification and minimising downtime.

Periodic Checks



CAUTION! In dusty, dirty or smoky environments, cleaning, inspection and servicing of the unit on a regular basis is essential. The cleaning, inspection and servicing must be undertaken more frequently in harsh conditions to avoid damage or destruction of equipment.

The following checks and cleaning operations should be undertaken on a regular basis (at least annually). The frequency of these activities will depend on the nature of the operating environment and the operational hours of the SilageMaster unit. Refer to the maintenance schedule tables below for details of maintenance intervals.

- Clean the unit and inspect it for any signs of damage or wear. Replace any safety labels if they are damaged or illegible.
- Check all fittings are firmly secured, tighten if necessary.
- Check all electrical cables and fittings for any sign of damage.
- If the SilageMaster is to be stored for an extended period, thoroughly clean and decontaminate the unit as described above. Ensure it is allowed to dry, the tank and all lines empty and not pressurised then store it in a well ventilated area.

Maintenance Schedule

The following tasks are to be conducted in accordance with each of the schedules. All scheduled tasks are to be undertaken concurrently. For example, at the three month maintenance interval, all tasks listed are to be undertaken, in addition to the daily, weekly and monthly tasks.



NOTE! Maintenance is important. Keep a record of all maintenance tasks conducted on the SilageMaster unit.

- TTI recommends photocopying these schedules in order to keep a detailed log of all maintenance tasks. A copy of these schedules will be required to support any warranty claim.

Daily Tasks

The following tasks are to be undertaken daily, or prior to each use, of the SilageMaster unit.

No.	Task	Notes
1	Inspect the SilageMaster unit for any signs of damage or wear	Clean, repair or replace
2	Check electrical plug connection	Top up as required

Weekly Tasks

The following tasks are to be undertaken each week or 10 operating hours, whichever occurs first.

No.	Task	Date	Signed
1	All Daily tasks		

Monthly Tasks

The following tasks are to be undertaken each month or 20 operating hours, whichever occurs first.

No.	Task	Date	Signed
1	All Daily and Weekly tasks		
2	Check hose and boom		

Three Monthly Tasks

The following tasks are to be undertaken every three months or 50 operating hours, whichever occurs first.

No.	Task	Date	Signed
1	All Daily, Weekly and Monthly tasks		
2	Check all hoses, fasteners, nozzles and fittings		

Six Monthly Tasks

The following tasks are to be undertaken every six months or 100 operating hours, whichever occurs first.

No.	Task	Date	Signed
1	All Daily, Weekly, Monthly and 3-Monthly tasks		
2	Inspect mounting fixtures		

Twelve Monthly tasks

The following tasks are to be undertaken every twelve months or 200 operating hours, whichever occurs first.

No.	Task	Date	Signed
1	All Daily, Weekly, Monthly, 3-Monthly & 6-Monthly tasks		
2	Electric pump inspection and clean		
3	Clean suction filter screen		

Two-Yearly tasks

The following tasks are to be undertaken every 24 months or 500 operating hours, whichever occurs first.

No.	Task	Date	Signed
1	All Daily, Weekly, Monthly, 3-Monthly, 6-Monthly and 12-Monthly tasks		
2	Replace pump check valves and diaphragms		
3	Replace battery in wireless remote control unit		

Trouble Shooting

If a fault develops with your SilageMaster unit, the following trouble shooting tables provides guidance to identify and rectify the problem.

Pump

Problem	Possible cause	Remedy
Pump will not prime	Air leak on suction line	Tighten or replace fittings
Pressure drops or fluctuates during operation	Suction line restriction	Remove restriction
	Pump sucks air	Tighten or replace fittings
No pressure	Broken regulator spring	Replace regulator spring

Risk Assessment

Task	Hazard	Risk	Control Measure/Mitigation
Check weather conditions	Manual handling; slips, trips or falls	Low	<ul style="list-style-type: none"> Wear PPE as per chemical requirements SDS – coveralls, gloves, safety footwear, glasses & respirator Follow safe manual handling techniques: don't lift on your own if >20kg, bend knees & keep back straight.
Mix chemicals (if applicable) and fill spray tank	As above, spray drift, chemical spillage, emission of vapours or flammability; weather, untrained visitors	Medium	<ul style="list-style-type: none"> As above User trained in relevant chemical mixing & administration course, e.g, Chem Cert; Follow relevant Environmental Protection Authority requirements; Fire extinguisher nearby; Keep visitors away from job location unless wearing full PPE.
Check the Spray Unit and carry vehicle is safe before use, i.e. where applicable: - wheel nuts, tire pressure, bearings, tow hitch, etc. Use spray unit as per instructions in manual	As above; loss of load; heat & cold; noise; exceed load limit of vehicle; hose entanglement; exhaust fumes; terrain & slopes;	High	<ul style="list-style-type: none"> As above wear clothes to suit heat & cold; Wear hearing protection if noise >85 dBa; Follow the manufacturer's safe operation instruction for the vehicle and the spray unit Don't overload - water weighs 1kg for every 1 litre Secure load to vehicle; Keep hose tidy; Put unit brakes on.
Clean up, maintenance & storage	As above	Low	<ul style="list-style-type: none"> As above; Continue to wear PPE for clean up; Store unit in a dry, well ventilated area.

Warranty

Your rights under the law

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law.

You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

About this document

This document sets out the terms of the defects warranty that we offer to retail purchasers of our goods, including components, parts, and accessories (referred to as “products” in this document). We offer this defects warranty in addition to the consumer guarantees referred to above. Nothing in this document excludes or reduces your rights under those consumer guarantees.

What this warranty covers

This warranty covers defects in materials or workmanship (or both) which are found to be present in our products, other than the defects in the parts and components listed below.

What this warranty does not cover

This warranty does not cover defects or damage caused by your negligence, your failure to follow instructions (including incorrect assembly or mounting by you), or the improper use, maintenance, or abuse of the products.

This warranty does not cover engines, gearboxes, pumps, or regulators. These come with separate warranties from their manufacturers. By offering this defects warranty, we do not assume any additional obligations or liability on behalf of those manufacturers beyond what we must do to comply with the consumer guarantees referred to above.

How long this warranty lasts for

Except in the case of products used for rental purposes, the period of our defects warranty is as follows for our various products:

Tanks (non-diesel), excluding frames	25 Years
Steel frames	5 Years
Other TTi Manufactured Components	1 Year

This warranty lasts for one year from the date of your retail purchase of the products, unless it is used for rental purposes, in which case this warranty is limited to 90 days.

What we will do if you make a claim under this warranty

If you make a claim under this warranty, we will consider it in good faith. If we agree that the products are covered by this warranty and are defective, we will either (at our option) repair or replace them without charge to you.

What you must do (and not do) to entitle you to a claim under this warranty

You must be able to provide proof of purchase, either by providing details of your warranty registration or a purchase receipt.

You must not repair or modify (or allow the repair or modification of) the products without prior authorisation from us. Further, you must not use any non-genuine parts with the products. Doing any of these things will void this defects warranty.

How to make a claim under this warranty

If you believe that you have a claim under this warranty, please contact your reseller, or contact us using the following details:

Name:	Trans Tank International
Postal Address:	PO Box 137 Nathalia, VIC, 3683
Physical Address:	Murray Valley Highway, Nathalia, VIC, 3638
Phone:	1800 816 277
Email:	ProductSupport@tti.com.au

You must make the defective products available for inspection by returning them to us, and (if requested to do so) by making them available for inspection by us on site beforehand. You must ensure that the products are made safe for transportation and inspection, including by cleaning them thoroughly to remove any chemical residues. All returned products must be accompanied by a completed Return Goods Note. Please contact us using the details displayed above for a copy of this document.

Who is responsible for expenses for claims made under this warranty

You are responsible for any expenses associated with the warranty claim, including transportation, charges made for service calls, and clean-up time.



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Handbook online

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PO Box 137, Nathalia, VIC, 3638

Murray Valley Hwy, Nathalia, VIC 3638

Proudly Built By:

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Date

Quality Checked By:

Signature

Date

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